TELEPHONY

THE AMERICAN TELEPHONE JOURNAL

INDEX TO VOLUME 89

July 4 to December 26, 1925

TELEPHONY PUBLISHING CORPORATION
608 So. Dearborn St.
CHICAGO

Immediately following the title of the articles in this index will be found the number of the issue, followed by the page number. Thus, 3-29 means issue number 3, page 29. Articles designated by an asterisk (*) are illustrated.

A

Accounting:
- Conference of accounting division of national association,* 16-30.
- Count of stations and apparatus,* by Mrs. Innes V. Shaffer, 3-22.
- Importance of plant accounting,* by Frank J. Brookman, 20-12.
- Relation of accounts to managers, by Lawrence E. Croake, 14-27.

Annual reports:
- Coos & Curry Telephone Co., Ore., 1-34.
- Farmers Telephone Co. of Dodge County, Neb., 1-34.
- International Telephone & Telegraph Corp., 9-27.
- Nevada, California & Oregon Telephone Co., 1-36.
- Northern New York Telephone Corp., 1-34.
- Northwestern Bell Telephone Co., 1-34, 5-36.
- United Telephone Co., Abilene, Kans., for 1924, 6-35.

Arkansas association holds mid-summer meeting, 5-14.

Association activities:
- Operating organization and plant,* by Jay G. Mitchell, 20-17.
- See "Conventions" and activities listed under the various states.

Automatic:
- Automatic Telephone Mfg. Co. of Liverpool,* 12-30.
- The post office and the automatic,* by Col. T. F. Purves, 4-12, 5-22, 6-21, 7-17, 8-17, 9-20, 10-27.

B

Bell:
- National association confers with Bell regarding purchases, 21-15.
- With the pioneers in Washington,* 17-17.

Book Review:
- Dyke's automobile and gasoline engine encyclopedia, 21-42.
- History of the telephone in the United Kingdom, by F. G. C. Baldwin, 4-36.

"Borrowing" service, Rules against magazine solicitors, 7-30.

British: The post office and the automatic,* by Col. T. F. Purves, 4-12, 5-22, 6-21, 7-17, 8-17, 9-20, 10-27.

Budget:
- Foundations of successful budget, by T. H. Nicholson, 19-16.
- Importance of the budget system, by T. H. Nicholson, 18-12.
- Preparation of budget estimates,* by T. H. Nicholson, 21-16.
- Quantitative budget and its value,* by T. H. Nicholson, 24-15.
- Why a budget in telephone field? by H. F. McCulla, 14-19.

C

Cable: New York-Chicago cable placed in commercial service, 15-50.

California: Commission report shows telephone development in, 15-50.

Canada: Convention of Telephone Association of Canada,* 12-17.

Cedar poles, Preservation of, by J. D. Burnes, 24-22.

Central office equipment maintenance, by L. A. Campbell, 15-23.

Chats about company doings, Some, 1-28, 4-22, 6-36, 9-29, 13-22, 15-32, 18-18, 24-30, 26-27.

Cincinnati rate case, High court in, 1-22.

Collections:
- Collection problems and practices,* by Coburn Allen, 1-12.
- Fundamentals of good collections,* by E. B. Scott, 19-14.

Commercial:
- Collection problems and practices,* by Coburn Allen, 1-12.
- Solving "phone sponger" problem,* by Miss Marjorie Smith, 6-14.
- The telephone counter clerk's job,* by Miss Sarah A. Brownlee, 20-34.

Complaints: Handling service complaints,* by Mrs. Mabel Pearson Sellvin, 7-22.

Condensed telephone news, 11-34, 22-42.

Construction:
- Construction of longest overland cable completed, 8-16.
- Laying of submarine cable across Galveston Bay completed, 5-30.

Conventions:
- Arkansas association holds mid-summer meeting, 5-14.
- Illinois,* by Stanley R. Edwards, 22-12.
- Indiana opens convention season, by Stanley R. Edwards, 14-12.
- Missouri,* by Stanley R. Edwards, 25-16.
- Northern Indiana association meets, by Martin Umbach, 13-17.
- Telephone Association of Canada,* 12-17.
- Telephone Association of Maine, 13-18.
- Vermont association, 2-26.
- Washington association, 2-26.

Cooperation among public utilities,* by Jay G. Mitchell, 3-19.

Cooperation between toll center and tributary office, by Miss E. R. Keegan, 26-24.

County ownership of telephone defeated in Nebraska, 22-36.

D

Deposit, Upheld in requiring deposit of subscriber whose credit is bad, 25-40.

Depreciation: High court in Cincinnati rate case, 1-22.

Discontinuing service: Company upheld in discontinuing service used unlawfully, 2-34.

E

Economy of circuit time, by Miss Elizabeth R. Dunn, 26-25.

Economics:
- "Field management" and results, by T. H. Nicholson, 6-18.
- Foundations of successful budget, by T. H. Nicholson, 19-16.
- Importance of the budget system, by T. H. Nicholson, 18-12.
- One pole does the work of two,* by H. H. Carl, 15-22.
- Preparation of budget estimates,* by T. H. Nicholson, 21-16.
- Quantitative budget and its value,* by T. H. Nicholson, 24-15.
- Telephone economics analysis,* by T. H. Nicholson, 5-12.
- The economic provision of plant,* by C. G. Barker, 10-17.
- The "public appreciation" problem, by T. H. Nicholson, 11-18.
- Utilizing telephone by-products, by T. H. Nicholson, 7-15.
- Why budget in telephone field? by H. F. McCulla, 14-19.

Editorials:
- A good way to handle the burden of high telephone taxes, 13-11.
- A tribute to the telephone from American women's clubs, 20-11
- Better management is the vital issue of the hour, 2-11.
- Economic factors in telephone rate making recognized, 7-11.
- How good public relations help; a practical example, 3-13.
- Independent and Bell relations in the telephone industry, 24-11.
- Keeping watchful eye on telephone financing plans, 25-11.
- "Slow and sure" is a rule that always pays dividends, 19-13.
- Some opinions and comments on current telephone topics, 4-11, 6-13, 9-13, 10-11, 15-15.
- Some significant developments of the Chicago convention, 17-11.
- Southern Bell bids for Georgia property causes comment, 1-11.
- Telephone financing active and gaining in public favor, 14-11.
- Telephone rates and the value of telephone service, 23-13.
- Telling the public the value of their telephone service, 8-11.
- The investor gains popularity; a telephone application, 12-13.
- The motto "live and let live"; the new business era, 22-11.
- The municipal telephone threat; business outlook good, 5-11.
- The state-federal contest over utility rate regulation, 18-11.
- The state-federal utility control and telephone rates, 21-11.
- The telephone saturation point is nowhere in sight, 11-11.

Education:
- Engineering education in U. S. A., by A. A. Potter, 14-31.
- Massachusetts Institute of Technology adds telephone course,* 19-19.

Employe and employer relations:
- Developing good employe relations, by George L. Sterns, 10-21.
- Employer and employe relationship, by Luke L. Ballard, 4-28.
- Employes and the public's good will, by R. W. Garner, 15-48.
- Preparing for the next job ahead, by Herrick L. Johnson, 24-12.
- Supervision, morale and results, by Harry E. Eldridge, 8-12.
- The operator, company and public,* by Miss Manta J. Elder, 15-39.

Engineering education in U. S. A., by A. A. Potter, 14-31.

Ericsson company, Expansion of the,* 17-33.

Exchanges, History and Description of:
- Butler, Pa., exchange automatic,* 18-24.
- New Gloversville plant cut-over,* 20-30.
- Telephone much used in dairy town,* 1-21.

F

Florida: New exchange of Peninsular company at Lakeland,* 19-26.

Foreign:
- "Carrier wave" installation on Melbourne-Sidney line, 18-28.
- Details of proposed telephone system in Smyrna, 16-28.
- Ericsson company to install automatic in Russia, 18-28.
- Expansion of the Ericsson company, 17-33.
- Leeds' four automatic satellites,* by J. W. Catchpole, 25-30.
- Russia to spend $100,000,000 to Americanize its telephones, 2-23.
- Telephone and telegraph systems of Yugoslavia, 22-29.
- Telephone system of Persia a concession by government, 3-20.
- The Automatic Telephone Mfg. Co.,* 12-30.
- The post office and the automatic,* by Col. T. F. Purves, 4-12, 5-22, 6-21, 7-17, 8-17, 9-20, 10-27.
- To commence construction of long distance lines in Mexico, 4-30.

Franchise: Northwestern Bell is granted franchise at Cherokee, Iowa, 17-29.

G

Galvanized iron and steel wire,* by Frederick M. Crapo, 4-32.

Good will: Getting back discontinued patrons, by E. G. Morgan, 9-17.

H

Here and there in telephone work, 2-30, 5-29, 11-25, 12-27, 19-26, 22-26, 24-19, 25-27.

History: Orange County Telephone Co., Middletown, N. Y.,* 15-26.

I

Illinois:
- "Best ever" Illinois convention,* by Stanley R. Edwards, 22-12.
- High court ruling on hearings before Illinois commission, 2-34.
- Illinois Bell loses telephone revenue suit in Chicago, 3-32.
- Operating organization and plant,* by Jay G. Mitchell, 20-17.
- Telephone much used in dairy town,* 3-21.

Indiana:
- History of Rochester Telephone Co.,* by L. M. Hayes, 10-19.
- Indiana opens convention season, by Stanley R. Edwards, 14-12.
- Joint meeting of Northern Indiana and Benton associations, 21-15.
- Northern Indiana association meets, by Martin Umbach, 13-17.
- Suit to revoke Indiana Bell company's charter revoked, 1-38.

Inductive interference, Action upheld by California court, 21-30.

Interdependence of telephone companies,* by Charles S. Norton, 15-19.

International corporation acquires International Western Electric Co., 9-26.

Interstate Commerce Commission issues Class A company statistics, 2-32, 9-18, 14-20, 17-22, 21-18, 25-28.

J

Joint use of poles: One pole does the work of two,* by H. H. Carl, 15-22.

K

Kansas:
- Ten per cent savings plan of United Telephone Co., 26-16.
- Winners in thrift plan letter contest of United Telephone Co., 10-22.

M

Maine: Annual meeting of Telephone Association of Maine, 13-18.

Maintenance:
- See "Safety First."
- "A stitch in time saves nine," by D. E. Bennett, 26-22.
- Central office equipment maintenance, by L. A. Campbell, 15-23.
- Duties of a maintenance repairman, by G. A. Fritz, 8-23.
- Elements of efficient maintenance,* by C. A. Kee, 9-14.

Management:
- "Field management and results," by T. H. Nicholson, 6-18.
- Getting back discontinued patrons, by E. G. Morgan, 9-17.
- Gleanings from manager's experience, by Frank H. Williams, 23-21.
- My 22 years' telephone experience,* by M. E. Layton, 23-18.
- "My experiments in telephony,"* by P. A. Mitchell, 21-12.
- Relation of accounts to managers, by Lawrence E. Croake, 14-27.
- Telephone economics analysis,* by T. H. Nicholson, 5-12.

The unprofitable small exchange,* by J. C. Paxton, 11-12.
Utilizing telephone by-products, by T. H. Nicholson, 7-15.
Manufacturers, With the, 3-40, 5-32, 7-40, 9-32, 10-38, 11-27, 13-32, 15-52, 18-26, 19-34, 23-38, 24-34.
Massachusetts:
Bell's Massachusetts rates raised, 6-28.
Massachusetts Institute of Technology adds telephone course,* 19-19.
Michigan:
Michigan Bell filed application for statewide rate increase, 10-34.
Rate case of Michigan Bell, 9-34.
Minnesota:
District conferences of Minnesota association, 2-14, 11-16.
Minnesota Supreme Court upholds commission's power, 6-38.
Missouri: The Missouri telephone convention,* by S. R. Edwards, 25-16.
Moving switchboard to second floor,* 22-28.
Municipal ownership: "Muny" plants agitated in Nebraska, 4-20.

N

Nebraska:
Discussions at Nebraska district meetings make "big hit," 23-23.
District meetings to consider accounting methods, 21-20.
New York:
District meeting at Ogdensburg, 14-30.
Middletown district meeting, 19-16.
Middletown's telephone progress,* 15-26.
New Gloversville plant cut-over,* 20-30.
Successful district meeting at Plattsburg, 8-22.

O

Ohio:
At the Lima operator meetings, 18-16, 23-22.
Picnic of Warren & Niles Telephone Co.,* 8-25.
Oklahoma:
District meetings, 2-27, 13-21, 22-17.
Private wire system in oil country,* 4-18.
Operator: Interesting things about my work,* by Miss Esther Dysard, 12-14.

P

Peg count: Purpose and value of,* by R. S. Brewster, 25-12.
Pennsylvania:
Butler, Pa., exchange automatic,* 18-24.
Peoples Telephone Corp. of Butler acquires Bell, 25-36.
Single service in Meadville, Pa., 7-23.
Personal and biographical notes,* 3-29, 5-20, 7-36, 8-26, 12-22, 17-26, 18-23, 19-23, 21-22, 22-30, 24-21, 25-34.
Phantom:
Grounded phantom circuits for short distances give satisfaction,* by N. E. Branson, 5-29.
Phantom circuit for adding circuit to rural lines,* by Thomas H. Allen, 2-30.
Pioneer:
Independent pioneers hold fifth annual meeting,* 16-26.
Prize membership contest of Independent Pioneers' association, 8-16.
With the Bell pioneers in Washington,* 17-17.
Plant:
Better plant ideas; better service,* by C. W. Kugelman, 11-15.
Conference of plant division of national association,* 16-34.
Importance of plant accounting,* by Frank J. Brookman, 20-12.
Practical vision in plant layout,* by E. R. Hannibal, 2-12.
"Speaking of operations,"* by Miss Nelle M. Roberts, 22-16.
The economic provision of plant,* by C. G. Barker, 10-17.
Power line interference: Standard construction ordered on offending transmission line, 3-32.
Private wire system in oil country,* 4-18.
Public relations:
Employes and public's good will, by R. W. Garner, 15-48.
The telephone counter clerk's job,* by Miss Sarah A. Brownlee, 20-34.
Winning the public's confidence,* by Miss Katherine A. Crowley, 21-23.
Publicity: (See "Here and There in Telephone Work").
Fiction story publicity big success, by R. W. McPherson, 5-18.
Publicity methods and results,* by Geo. L. Sterns, 22-21.

R

Radio:
DeForest says radio is out of experimental stage, 4-19.
Fourth national radio conference, 20-19.
Hawaiian Islands systems to be linked by radio, 8-24.
Investigation of radio antennae by means of models, 1-27.
Monopoly hearings before Federal Trade Commission, 18-15.
Preliminary analysis of high-power radio broadcasting, 11-26.
Radio conference recommendations, 21-19.
Radio from listener's standpoint, by Ray H. Manson,* 1-18, 2-15.
The new word in radio—"kilocycle"—and its use, 11-16.
Rates:
Supreme court upholds federal injunction in Chicago case, 17-27.
U. S. Supreme Court hears Illinois Bell case, 16-66.
Rate hearings:
Indiana, 22-36, 23-32, 24-36, 25-36, 26-30.
Maine, 13-34, 19-32, 26-28.
Massachusetts, 1-38, 2-36, 3-32, 4-38, 15-30.
Michigan, 13-34, 14-34, 21-30, 23-30.
New Hampshire, 5-40, 6-40, 7-32.
New York rate hearing, 5-36, 21-30, 23-30.
Rhode Island, 1-40, 9-38, 11-30.
Vermont, 23-34, 24-39, 25-40.
Virginia, 24-40, 25-41.
Rate increases:
Armstrong Telephone Co., Minnesota, 22-36.
Athens, Ala., 25-36.
Center, Ind., 10-34.
Center (Mo.) Telephone Exchange, 17-29.
Cincinnati rate case, High court in, 1-22.
Clinton, Mo., 17-29.
Cloquet, Minn., 14-36.
Commonwealth Telephone Co. of Pennsylvania, 26-33.
Conestoga Telephone & Telegraph Co. of Pennsylvania, 17-29.
Cumberland, Wis., 2-40.
Davenport, Okla., 6-40.
Deer Creek, Minn., 24-38.
Des Moines, Iowa, 5-38.
Detroit, Minn., 15-30.
Flandreau, S. D., 12-39.
Fond du Lac, Wis., 13-40.
Frederickstown, Mo., 12-38.
Hiawatha, Kans., 17-28.
Lerdal Telephone Co. of Minnesota, 7-30.
Lincoln County, Minn., 8-31.
Machens-West Alton Telephone Co. of Missouri, 2-36.
Martinsville, Mo., 13-36.
Massachusetts, 6-28.
Michigan Bell, Lansing, 18-29.
Montana revision in business rates, 1-38.
Neligh, Neb., 5-38.
Northwestern Bell upheld in rate contention in Nebraska, 1-36.
Oklahoma companies, 12-38.
Oneida Farmers, Wis., 10-36.
Ontario-Wilton Telephone Co., of Wisconsin, 2-40.
Pleasant Plains and New Berlin, Ill., 3-32.
Reno, Okla., 3-34.
Rib Lake, Wis., 18-32.
Rochester, Ind., 15-30.
St. Louis increased business rates upheld by court, 26-32.
Shawano, Wis., 10-36.
Stotts City, Mo., 2-38.
Sullivan, Mo., 14-34.
Washington case, Special master approves rate increases in, 14-38.
Washington & Western Telephone Co., Nebraska, 7-32.
Weeping Water, Neb., 13-38.
Windsor, Mo., 13-36.
Wisconsin exchanges, 3-36, 9-38.
Wittenberg, Wis., 5-40.
Rate-making principles, Telephone,* by R. F. Wilder, 17-12.
Reflecting personality over the telephone, by Frank A. Secord, 2-30.
Report charges and timing toll tickets, by Miss Catherine A. Rock, 26-24.
Review of the year, by Stanley R. Edwards, 26-11.
Rhode Island: Increased Bell rates become effective, 7-34.

S

Safety First: Safety methods in telephone work,* by A. W. Hill, 1-15, 3-17, 5-15, 7-26.
Sales, mergers and consolidations:
Baker, LeRoy and Heyworth (Ill.) companies are merged, 25-20.
Batchtown and Brussels (Ill.) telephone companies merge, 7-17.
Bell acquires Beaver County company of Pennsylvania, 16-65.
Canton & LeRoy company takes over local Bell line, 8-25.
Erie-Wyoming Telephone Co. sold to New York Telephone Co., 11-30.
Florida Telephone Corp. to consolidate seven Florida companies, 14-18.
Fort Lauderdale plant becomes property of Southern Bell, 14-34.
Hampton, Neb., exchanges to be merged by Farmers company, 8-32.
Illinois Consolidated to acquire Monmouth properties, 3-16.
Interstate of Spokane acquires additional holdings, 1-20.
Local company to take over Bell plant at Blair, Neb., 5-36.
Nebraska company buys non-competing Farmers company, 5-20.
North Texas Telephone Co. takes over eight exchanges, 10-26.
Palestine (Texas) company sold to Two States company, 8-22.
Penn State sale to Bell approved, 7-34.
Pennsylvania Bell properties bought by Meadville company, 4-38.
Perry County properties sold to Cape Girardeau (Mo.) company, 12-21.
Red Cloud, Neb., merger approved, 8-32, 13-36.
Redondo Home acquired by Santa Monica Bay Home Telephone Co., 1-21.
Sand Springs merger approved by Oklahoma commission, 7-32.
Seymour, Iowa, consolidation, 5-14.
Single service in Meadville, Pa., 7-23.
Sullivan Telephone Corp. to take over two New York systems, 7-32.
Tillamook County company sale approved by I. C. C., 24-36.
Tri-State of Uniontown, Pa., sale approved, 15-30.
Tunkhannock system merger with Commonwealth Telephone Co. of Center Moreland, Pa., approved, 26-32.
Yakima valley systems purchased by Oregon company, 5-16.
York company acquires local Bell plant, 9-36.
Sands Electric Co. organized,* 21-40.
Service:
Better plant ideas; better service,* by C. W. Kugelman, 11-15.
Administration of service standards, by C. B. Hayden, 2-21.
Small exchange problem:
The unprofitable small exchange,* by J. C. Paxton, 11-12.
Typical small company troubles, by B. M. Cowles, 15-42.
South Dakota: District meetings, 21-28.
Sponger: Solving "phone sponger" problem," by Miss Marjorie Smith, 6-14.
Squier case, U. S. Supreme Court upholds lower court in, 19-30.
Standardization:
Administration of service standards, by C. B. Hayden, 2-21.
Year book shows progress in national standardization, 4-36.
State association executives meet, 16-42.
Statistics:
Analysis of world statistics as of January 1, 1924, 4-34.
Summary of statistics of A, B and C member companies of national association in eastern district, 5-17.
Summary of statistics of A, B and C member companies of national association in central district, 4-17.
Summary of statistics for A, B and C member companies of national organization in western district, 13-16.
Summary of statistics for A, B and C member companies of national organization throughout the United States, 16-21.
Submarine cable problem, Solution to,* by Elmer I. Campbell, 13-19.
Sundry snapshots along the telephone trail,* 1-17, 8-28, 17-22, 19-21, 20-20, 21-21, 23-28, 25-21.
Superservice P. B. X. at Kodak Park,* by C. G. Vickery and H. J. Murphy, 11-24.
Supervision, morale and results,* by Harry E. Eldridge, 8-12.

T

Testing equipment: How to use testboard voltmeter,* by Carleton Haven, 13-12.
Texas:
Dallas district meeting, 14-22.
Georgetown district meeting, 19-16.
Tyler district meeting, 10-20.
Thrift:
Encourage thrift among employes,* 26-16.
Winners in thrift plan letter contest,* 10-22.
Toll:
Engineering a toll circuit layout,* by R. R. Johnson, 24-20.
Popularizing toll service among radio fans, 22-27.
The interdependence of companies,* by Charles S. Norton, 15-19.
Toll line routes—a telephone hobby, by A. G. Kingman, 12-26.
Traffic:
Attitude of chief operator and supervisors toward their work, by Mrs. E. C. Jones, 23-22.
Benefits of having a restroom and pleasant quarters for work, by Miss Amanda Abrahamson, 22-18.
Brief history of the telephone, by Miss

Luella Clancy, 18-17.
Efficiency in your operating room,* by Miss Bess Peterson, 3-14.
Essential facts about toll operating, by A. C. Stuart, 3-30.
Essential record of a traffic department, by Miss G. I. Ryland, 3-30.
Functions of a traffic supervisor,* by Mrs. Ada Durfee, 4-21.
Handling service complaints,* by Mrs. Mabel Pearson Sellvin, 7-22.
Interesting things about my work,* by Miss Esther Dysard, 12-14.
Local operating methods, by Mrs. Aurelia Rolphe, 22-18.
Meeting of traffic division of national association, 16-38.
Method of training operators without a school, by Miss Martha O'Dell, 1-30.
Operator in public relations, by Miss Ella Piper, 23-22.
Operator's responsibility, by Miss Mildred Bryant, 25-19.
Organization and system among operating forces, by Miss Lillian H. Cooper, 22-19.
Purpose and value of peg count,* by R. S. Brewster, 25-12.
Purpose of central office records, by Mrs. Florence Sheehy, 9-28.
Some warning signals to be heeded,* by Miss Anne Barnes, 14-21.
"Speaking of operations,"* by Miss Nelle M. Roberts, 22-16.
Teamwork between departments,* by Miss Bertha Eckard, 5-19.
Tell it to the people, by Miss Veda Neville, 23-23.
The completion of toll calls,* by Mrs. Hattie Gough, 11-20.
The effect of traffic conferences, by Miss Katherine H. Moore, 2-20.
The importance of toll tickets, by Miss Grace Peltier, 1-30.
The operator, company and public,* by Miss Manta J. Elder, 15-39.
The proper training of operators, by Miss Eleanor R. Fletcher, 13-28.
The purpose of traffic conferences, by Miss Margaret P. Croaks, 2-19.
The supervisor and her duties, by Nell Murray, 18-16.
The traffic conference and the chief operator, by C. G. Vickery, 2-19.
Training operators; bulletin board,* by Miss Manta J. Elder, 10-12.
What I see as I sit at my switchboard, by Miss Minnie Clark, 25-19.
What is the most important department? by Miss Mary Connolly, 18-16.
Why we should attend a traffic conference, by Miss Ruth Dufty, 1-32.
Winning the public's confidence,* 21-23.
Transmission: The reporting of cases of poor toll transmission, by A. G. Kingman, 11-25.
Tree-trimming: Trees on the highways and the wires,* by E. J. McGrath, 7-12.
Trouble location: How to use testboard voltmeter,* by Carleton Haven, 13-12.

U

United States Independent Telephone Association:
Announcements of 1925 convention, 13-15.
Conference in central district, 4-17.
Conference in eastern district, 5-17.
Meeting of association directors,* 16-44.
Pacific Coast district conferences, 13-16.
Quarterly meeting of directors of national association, 24-14.
The "big" Independent convention,* 16-17.
Use of telephone, Teacher drills children on, 3-18.

V

Vacuum tube patent awarded to Langmuir after long battle, 22-20.
Vail hero awards, Four women in list of seven, 25-22.
Value of telephone to subscriber, by Peter Eulberg, 25-23.
Vermont Telephone Association holds its annual meeting, 2-26.

W

Washington:
Farmers company in Washington now free of debt, 14-26.
Independent association has good convention, 2-26.
Special master approves rate increases in Washington case, 14-38.
Wiring of large building,* by Frank M. Simpson, 23-14.
Wisconsin:
LaCrosse district conference, 18-14.
Wausau district meeting, 15-25.

AUTHORS' INDEX.

Allen, Coburn: Collection problems and practices,* 1-12.
Allen, Thomas H.: Phantom circuit for adding circuit to rural line,* 2-30.
Ballard, Luke L.: Employer and employe relationship, 4-28.
Barker, C. G.: The economic provision of plant, 10-17.
Barnes, Miss Anne:
A supervisor's creed, 21-26.
Boxed-labeled, 10-16.
Crowded back, 18-22.
Dignify your vocation, 6-31.
Eight from twenty-four leaves sixteen, 9-19.
Exit Agnes—let us hope, 2-28.
Fear and failure, 5-20.
Grumbling, 14-22.
It pays to advertise, 1-16.
Knack and tact, 11-21.
Repetition vs. reputation, 19-22.
Silence is golden, 26-26.
Singing teaketties tell no lies, 17-21.
Some warning signals to be heeded,* 14-21.
Ten commandments for long distance operators, 22-20.
That's reputation, 23-20.
The closed door, 4-34.
The Heavenly radio message, 25-20.
The passing of the jay builder, 3-31.
The story of buzz interrupter, 15-40.
Through the dark, 24-18.
To insure promptness, 8-24.
"We regret," 13-30.
Your objective, 12-28.
Bennett, D. E.: "A stitch in time saves nine," 26-22.
Boyle, Miss Fannie: My office work as I see it in a suburban exchange, 22-27.
Bracken, J. A.: About tools and material, 24-19.
Branson, U. E.: Grounded phantom circuits for short distances give satisfaction,* by N. E. Branson, 5-29.
Brewster, R. S.: Purpose and value of peg count,* 25-12.
Brookman, Frank J.: Importance of plant accounting,* 20-12.
Brownlee, Miss Sarah A.: The telephone counter clerk's job,* 20-34.
Burnes, J. D.: Preservation of cedar poles,* 24-22.
Campbell, Elmer I.: Solution to submarine cable problem,* 13-19.
Campbell, L. A.: Central office equipment maintenance, 15-23.
Carl, H. H.: One pole does the work of two, 15-22.
Catchpole, J. W.: Leeds' four automatic satellites, 25-30.
Clay, Well: Sundry snapshots along the telephone trail,* 1-17, 8-28, 17-22, 19-21, 20-20, 21-21, 23-28, 25-21.
Cowles, B. M.: Typical small company troubles, 15-42.
Crapo, Frederick M.: Galvanizing iron and steel wire, 4-32.
Croake, Lawrence E.: Relation of accounts to managers, 14-27.
Crowley, Miss Katherine A.: Winning the public's confidence,* 21-23.
Dysard, Miss Esther: Interesting things about my work, 12-14.
Edwards, Stanley R.:
"Best ever" Illinois convention, 22-12.
Indiana opens convention season,* 14-12.
"Telephony's" review of the year, 26-11.
The Missouri telephone convention,* 25-16.
Elder, Miss Manta J.:
The operator, company and public,* 15-39.
Training operators; bulletin board, 10-12.
Eldridge, Harry E.: Supervision, morale and results,* 8-12.
Eulberg, Peter: Value of telephone to subscriber, 25-23.
Fritz, G. A.: Duties of a maintenance repairman, 8-23.
Garner, R. W.: Employes and public's good will, 15-48.
Hannibal, E. R.: Practical vision in plant layout,* 2-12.
Harrington, L. M.: At the cross roads with a telephone man, 22-26.
Haven, Carleton: How to use testboard voltmeter,* 13-12.
Hayden, C. B.: Administration of service standards, 2-21.
Hill, A. W.: Safety methods in telephone work,* 1-15, 3-17, 5-15, 7-26.
Johnson, Herrick L.: Preparing for the job next ahead, 24-12.
Johnson, R. R.: Engineering a toll circuit layout, 24-20.
Kee, C. A.: Elements of efficient maintenance,* 9-14.
Kingman, A. G.:
Prompt reporting of equipment troubles by traffic employes, 25-27.
Toll lines routes—a telephone hobby, 12-26.
The reporting of cases of poor toll transmission, 11-25.
Kugelman, C. W.: Better plant ideas; better service, 11-15.
Layton, M. E.: My 22 years' telephone experience,* 23-18.
McCulla, H. F.: Why a budget in telephone field? 14-19.
McGrath, E. J.: Trees on the highways and the wires,* 7-12.
McPherson, R. W.: Fiction-story publicity a big success, 5-18.
Manson, Ray H.: Radio from listener's standpoint,* 1-18, 2-15.
Mitchell, P. A.: "My experiments in telephony," 21-12.
Mitchell, Jay G.:
Co-operation among public utilities,* 3-19.
Operating organization and plant," 20-17.
Morgan, E. G.: Getting back discontinued patrons, 9-17.
Murphy, H. J., and C. G. Vickery: Superservice P. B. X. at Kodak Park,* 11-24.
Nicholson, T. H.:
"Field management" and results, 6-18.
Foundations of successful budget, 19-16.
Importance of the budget system, 18-12.
Preparation of budget estimates, 21-16.
"Public apprecation" problem, 11-18.
Quantitative budget and its value,* 24-15.
Telephone economics analysis,* 5-12.
Utilizing telephone by-products, 7-15.
Norton, Charles S.: The interdependence of companies,* 15-19.
Paxton, J. C.: The unprofitable small exchange,* 11-12.
Peterson, Miss Bess: Efficiency in your operating room,* 3-14.
Potter, A. A.: Engineering education in U. S. A., 14-31.
Roberts, Miss Nelle M.: "Speaking of operations,"* 22-16.
Scott, E. B.: Fundamentals of good collections,* 19-14.
Secord, Frank A.: Reflecting personality over the telephone, 2-30.
Simpson, Frank M.: Large buildings—their telephones,* 23-14.
Shaffer, Mrs. Innes V.: Count of stations and apparatus,* 3-22.
Smith, Miss Marjorie: Solving "phone sponger" problems,* 6-14.
Sterns, George L.:
Developing good employe relations, 10-21.
Publicity methods and results,* 22-21.
Umbach, Martin: Northern Indiana association meets, 13-17.
Vickery, C. G., and H. J. Murphy: Superservice P. B. X. at Kodak Park,* 11-24.
Wilder, R. F.: Telephone rate-making principles,* 17-12.
Williams, Frank H.: Gleanings from manager's experience,* 23-21.

Conversion Table—Issue Number to Date of Issue

No. 1	July 4	No. 10	September 5	No. 19	November 7
No. 2	July 11	No. 11	September 12	No. 20	November 14
No. 3	July 18	No. 12	September 19	No. 21	November 21
No. 4	July 25	No. 13	September 26	No. 22	November 28
No. 5	August 1	No. 14	October 3	No. 23	December 5
No. 6	August 8	No. 15	October 10	No. 24	December 12
No. 7	August 15	No. 16	October 17	No. 25	December 19
No. 8	August 22	No. 17	October 24	No. 26	December 26
No. 9	August 29	No. 18	October 31		